III. AMENDMENTS TO THE CLAIMS

This listing of claims replaces all prior versions, and listings, of claims of the application.

1-8. (Cancelled)

9. (Currently Amended) A filter system for removing soot from exhaust of an exhaust producing device, the filter system comprising:

one or more attachable units for varying ~~the size~~ a length of the filter system, ~~the system~~ each attachable unit ~~comprising~~ including:

a particulate filter unit; and

one or more combination particulate and nitrogen oxide filter units.

10. (Original) The filter system of claim 9, wherein the particulate filter unit includes:

a particulate filter unit housing;

a plurality of concentrically arranged particulate filters within the particulate filter unit housing;

a plurality of first passages passing adjacent at least one particulate filter and opened to a first end of the particulate filter unit housing;

a plurality of second passages passing adjacent at least one particulate filter and opened to a second end of the particulate filter unit housing;

whereby exhaust passes through a particulate filter as the exhaust moves from the first passages to the second passages.

11. (Original) The filter system of claim 10, wherein the particular filter is made of a material chosen from the group comprising: ceramic fiber paper, ceramic cloth and ceramic woven fiber.

12. (Original) The filter system of claim 11, wherein the material is coated with a pre-ceramic polymer chosen from the group comprising: silicon carbide, oxycarbide, aluminosilicate and alumina.

13. (Original) The filter system of claim 9, wherein each combination filter unit includes:

a housing;

a particulate filter section positioned within the housing; and

a nitrogen oxide filter section having a gas-impervious inner cylinder spaced within the particulate filter section and a nitrogen-oxide removing catalyst positioned within the inner cylinder.

14. (Original) The filter system of claim 13, wherein, in each combination filter unit, exhaust gases pass radially through the particulate filter section and longitudinally through the nitrogen oxide filter section.

15. (Original) The filter system of claim 13, wherein the gas impervious cylinder has open ends and is spaced from an inner portion of the particulate filter section.

16. (Original) The filter system of claim 13, wherein the nitrogen oxide filter section is shorter in length than the particulate filter section.

17. (Original) The filter system of claim 13, wherein each combination filter unit further comprises:

a porous cylinder for supporting an inner portion of the particulate filter section; and

a first end cap for spacing the nitrogen oxide filter section concentrically within the particulate filter section.

18. (Original) The filter system of claim 13, wherein each combination filter unit further comprises a second end cap for spacing the nitrogen oxide filter section concentrically within the particulate filter section.

19. (Original) The filter system of claim 13, wherein the gas impervious cylinder includes a vent port for mating with an adjacent unit.

20. (Currently Amended) The filter system of claim 13, wherein the particulate filter section is spaced from an inner surface of the ~~second stage unit~~ housing.

21. (Original) The filter system of claim 13, wherein the particular filter section is made of a material chosen from the group comprising: ceramic fiber paper, ceramic cloth and ceramic woven fiber.

22. (Original) The filter system of claim 21, wherein the particulate filter section includes one of a set of radially oriented plates of the material and a set of radially oriented pleats of the material.

23. (Original) The filter system of claim 21, wherein the material is coated with a pre-ceramic polymer chosen from the group comprising: silicon carbide, oxycarbide, aluminosilicate and alumina.

24. (Currently Amended) A filter system for removing soot from exhaust of an exhaust producing device, the filter system comprising:

one or more attachable units for varying ~~the size~~ a length of the filter system, ~~the system~~ each attachable unit ~~comprising~~ including:

a first stage unit housing;

a plurality of concentrically arranged particulate filters within the first stage unit housing;

a plurality of first passages passing adjacent at least one particulate filter and opened to a first end of the first unit stage housing;

a plurality of second passages passing adjacent at least one particulate filter and opened to a second end of the first stage unit ~~stage~~ housing;

whereby exhaust passes through a particulate filter as the exhaust moves from the first passages to the second passages; and

one or more second stage units, each second stage unit including:

a second stage unit housing;

a particulate filter section positioned within the second stage unit housing; and

a nitrogen oxide filter section having a gas-impervious inner cylinder spaced within the particulate filter section and a nitrogen-oxide removing catalyst positioned within the inner cylinder.

25. (Original) The filter system of claim 24, wherein the first and second stage housings each include:

an outer metal shell; and

a coupling for sequentially attaching a unit to an adjacent unit.

26. (Cancelled)

27. (Currently Amended) A filter system for removing soot from exhaust of an exhaust producing device, the filter system comprising:

one or more attachable units for varying ~~the size~~ a length of the filter system, each unit including:

means for housing filter components;

means for filtering particulates positioned within the means for housing; and

means for filtering particulates and nitrogen oxide.

28. (Original) The filter system of claim 27, further comprising means for regenerating the filter system.

29. (Currently Amended) A filter system for removing soot from exhaust of an exhaust producing device, the filter system comprising:

one or more attachable units for varying the size of the filter system, ~~the system~~ each attachable unit ~~comprising~~ including:

a particulate filter unit including

a particulate filter unit housing;

a plurality of concentrically arranged particulate filters within the particulate filter unit housing;

a plurality of first passages passing adjacent at least one particulate filter and opened to a first end of the first unit ~~stage~~ housing;

a plurality of second passages passing adjacent at least one particulate filter and opened to a second end of the first unit ~~stage~~ housing;

whereby exhaust passes through a particulate filter as the exhaust moves from the first passages to the second passages; and

one or more combination filter units each including:

a combination filter unit housing having an outer shell and a coupling adapted to attach a unit to an adjacent unit;

a particulate filter section positioned within the combination filter unit housing;

a porous cylinder for supporting an inner portion of the particulate filter section;

a gas-impervious inner cylinder spaced within the porous cylinder; and

a ~~nitrogen-oxide-removing catalyst~~ nitrogen oxide filter positioned within the inner cylinder,

wherein exhaust gases pass radially through the particulate filter section and longitudinally through the nitrogen oxide filter.

30. (Original) The filter system of claim 29, wherein the plurality of particulate filters of the particulate filter unit and the particulate filter section of each combination filter unit are coated with a pre-ceramic polymer chosen from the group comprising: silicon carbide, oxycarbide, aluminosilicate and alumina.